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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/021,661	10/30/2001	Thomas A. Wucherer	TRIRG-08851US0	4969

80364 7590 04/03/2009

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EXAMINER	
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ART UNIT	**PAPER NUMBER**
2165	
MAIL DATE	**DELIVERY MODE**
04/03/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/021,661	WUCHERER ET AL.	
	Examiner	Art Unit	
	NEVEEN ABEL JALIL	2165	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *2/4/09*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Remarks

1. In response to Applicant's Amendment filed on February 4, 2009, claims 1-19 remain pending.

Claim Objections

2. Claims 1, 4-5, and 9-10 are objected to because of the following informalities:

Claim 1, in line 14, the terms "data an intelligent" appears to be a typo since it doesn't appear to be grammatically correct. Appropriate correction is required.

In claim 1, the very last sentence, the terms "said the" appear to be typos since they don't appear to be grammatically correct. Appropriate correction is required.

Claim 1, line 18, recites "at least one component specification including the first component specification" which is confusing and doesn't seem to appropriately belong in the description of "intelligent CAD object". Appropriate correction is required.

The very last line of claim 1 appears to re-introduces the term "database" while the claim had introduced a database earlier, is this meant to be the same database or a different one? Appropriate correction is required.

In claim 4, line 4, the term "of the list" lacks antecedent basis since the amended claim no longer recites "specification list". Correction is required.

Claim 4, line 6, recite "in a database", while claim 1 has already introduced several databases, is this yet a third database being claimed or an incorrect reference to previously cited one? Correction is required.

Claim 5 does not include the intelligent CAD object. Appropriate amendment is required.

Claim 9, last sentence recites "non-graphical data units includes the first non-graphical data unit" which lacks meaning since due the previously raised claim objections, the claim is currently amended to remove "data unit". Clarification is required.

In claim 10, the recitation of "unit" in the last sentence lacks meaning since the claim has been amended to remove "data unit". Clarification is required.

Specification

3. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

In claim 4, line 8, the term "specification list" has neither definition nor any other mention beyond the claims in the specification.

And in claim 5, line 7, the term "specification list" has neither definition nor any other mention beyond the claims in the specification

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Loveland (U.S. Patent No. 6,826,539 B2) in view of McClendon et al. (U.S. Patent No. 6,625,619 B1).

As to claim 1, Loveland discloses a method of managing facilities data, the method being executable by a host computer system comprising:

receiving a first graphical element comprising a computer aided design (CAD) element, area or sub area entered by a user as an image displayed on a monitor of a first computer system and receiving non-graphical information associated with the first graphical element through a graphical user interface (See column 6, lines 21-32, also see Figure 19, 222, Upload Image),

the non-graphical information including a first component specification from a database comprising a plurality of component specifications, the first component specification comprising at least one non-graphical data element representing a physical or functional attribute and at least

one data element representing a non-physical and non-functional attribute (See column 4, lines 61-67, also see column 15, lines 56-65),

the intelligent CAD object (wherein Loveland 's abstract describes how the structure holds both the CAD object, its description and relationship definitions);

and first computer system transmitting said the intelligent CAD object to a database for storage via internet communication by the first computer system (wherein Loveland 's abstract describes how the structure holds both the CAD object, its description and relationship definitions).

Loveland discloses the claimed invention except for receive non-graphical information associated with the first graphical element including a first component specification; and

link information for at least one component specification to a second component specification and the graphical element, area, or sub area, by generating link data associated with the CAD element and component specifications (Does that include both first and second specification ?, the limitation is awkwardly written), at least one component specification including the first component specification.

Loveland doesn't explicitly teach linking of components and specification. However, Loveland in Figure 2, column 8, line 1-14, shows how components are linked to attributes, specifications, and photos. Loveland teaches storing specification in a database in column 2, lines 24-36, and column 17, lines 13-35.

McClendon et al. teaches receive non-graphical information associated with the first graphical element including a first component specification; and

link information for at least one component specification to a second component specification and the graphical element, area, or sub area, by generating link data associated with the graphical element and component specifications, a at least one component specification including the first component specification (See McClendon et al. Figure 2, also see McClendon et al. column 9, lines 8-32, and McClendon et al. column 14, lines 28-58).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Loveland by the teachings of McClendon et al. to include receive non-graphical information associated with the first graphical element including a first component specification; and link information for at least one component specification to a second component specification and the graphical element, area, or sub area, by generating link data associated with the graphical element and component specifications, a at least one component specification including the first component specification because it provides for ease of maintenance, and accuracy of records related to CAD project (See McClendon et al. column 4, lines 1-16).

As to claim 2, Loveland as modified discloses wherein the first computer system comprises a CAD computer system and wherein the CAD element is a first CAD graphical element, the first graphical element comprising the first CAD graphical element (See Loveland column 15, lines 35-55).

As to claim 3, Loveland as modified discloses wherein the graphical user interface comprises a plurality of fields, wherein the first component specification comprises a plurality of

non-graphical information, and wherein entering the first component specification into the graphical user interface comprises entering the plurality of non-graphical information components into the plurality of fields of the graphical user interface (See Loveland column 9, lines 43-53, also see Loveland column 10, lines 6-17).

As to claim 4, Loveland as modified discloses the first computer system receiving, via internet communication, component specification data, wherein specification data represents a plurality of component specifications displayed on the monitor of the first computer system, wherein each component specification of the list represents non-graphical information comprising a physical or functional attribute stored in a database in data communication with the first computer system, the first computer system displaying the list of specifications (See Loveland column 13, lines 53-67);

adding a second graphical element to the image displayed on the monitor of the first computer system (See Loveland column 13, lines 53-67, also see Loveland column 15, lines 35-67, more than one graphical element can be stored and viewed by the user);

the first computer system transmitting second graphical element data to the database via internet communication, wherein the second graphical element data represents the second graphical element (See Loveland column 18, lines 45-65, also see Loveland column 17, lines 30-62, teaches listing of more then one graphical element, and also teaches the database to be central or master wherein numerous users have access to it);

the first computer system transmitting link data to the database via internet communication, wherein the link data indicates that one of the data units associated with the

specifications in the specification list stored in the database is to be linked within the database to the second graphical element data after the second graphical element data is stored in the database (See Loveland column 18, lines 45-65, also see Loveland column 17, lines 30-62, teaches listing of more then one graphical element).

As to claim 5, Loveland discloses a method of managing facilities data, the method being executable by a host computer system comprising:

receiving a first graphical element comprising a computer aided design CAD element, area, or sub area entered by a user as an image displayed on a monitor of a first computer system (See column 6, lines 21-32, also see Figure 19, 222, Upload Image); and

displaying a graphical user interface on the monitor of the first computer system, wherein the graphical user interface is configured to:

receiving the first component specification into the graphical user interface, the first component specification comprising at least one non-graphical data element representing a physical or functional attribute and at least one data element representing a non-physical and non-functional attribute into the graphical user interface (See column 4, lines 61-67, also see column 15, lines 56-65);

transmitting said link data and said first component specification including the non-graphical data element and said data element representing the non-physical and non-functional attribute as a data unit to a database via internet communication by the first computer system (See column 2, lines 23-40).

Loveland discloses the claimed invention except for receive non-graphical information associated with the first graphical element including a first component specification; and

link information for at least one component specification to a computer aided design(CAD) clement, area or sub-area; and link information for at least one component specification to a second component specification and the CAD element, area or sub-area.

Loveland doesn't explicitly teach linking of components and specification. However, Loveland in Figure 2, column 8, line 1-14, shows how components are linked to attributes, specifications, and photos. Loveland teaches storing specification in a database in column 2, lines 24-36, and column 17, lines 13-35.

McClendon et al. teaches receive non-graphical information associated with the first graphical element including a first component specification; and

link information for at least one component specification to a computer aided design(CAD) clement, area or sub-area; and link information for at least one component specification to a second component specification and the CAD element, area or sub-area (See McClendon et al. Figure 2, also see McClendon et al. column 9, lines 8-32, and McClendon et al. column 14, lines 28-58).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Loveland by the teachings of McClendon et al. to include receive non-graphical information associated with the first graphical element including a first component specification; link information for at least one component specification to a computer aided design(CAD) clement, area or sub-area; and link information for at least one component specification to a second component specification and the CAD element, area or sub-area

because it provides for ease of maintenance, and accuracy of records related to CAD project (See McClendon et al. column 4, lines 1-16).

As to claim 6, and 18, Loveland discloses a method operating on a processor comprising:

a database receiving and storing first computer aided design CAD element data generated by a first computer system in data communication with the database, wherein the first Intelligent CAD element data represents a first CAD element, area, or sub area displayable on a monitor (See column 16, lines 30-55, teaches accessing the web interface via a communication network);

a database receiving and storing, as a component specification comprising at least one non-graphical data element representing a physical or functional attribute, and at least one data element representing a non-physical and non-functional attribute (See column 4, lines 61-67, also see column 15, lines 56-65).

an Intelligent CAD object (wherein Loveland 's abstract describes how the structure holds both the CAD object, its description and relationship definitions).

Loveland discloses the claimed invention except for creating and storing a link in the database between data unit and the first graphical element, wherein the data unit stores first non-graphical information data, and wherein the database is configured to link one of the plurality of component specifications to a second of the plurality of component specifications.

Loveland doesn't explicitly teach wherein the database is configured to link one of the plurality of component specifications to a second of the plurality of component specifications. However, Loveland in Figure 2, column 8, line 1-14, shows how components are linked to attributes, specifications, and photos stored in repository.

McClendon et al. teaches creating a link in the database between data unit and a first graphical element, wherein the link can be created between either the first graphical element, in the database wherein the data unit stores first non-graphical information data, and wherein the database is configured to link one of the plurality of component specifications to a second of the plurality of component specifications (See McClendon et al. Figure 2, also see McClendon et al. column 9, lines 8-32, and McClendon et al. column 14, lines 28-58).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Loveland by the teachings of McClendon et al. to include creating a link in the database between data unit and a first graphical element or a second data unit, wherein the link can be created between either the first graphical element or the second data unit, in the database wherein the data unit stores first non-graphical information data, and wherein the database is configured to link one of the plurality of component specifications to a second of the plurality of component specifications because it provides for ease of maintenance, and accuracy of records related to CAD project (See McClendon et al. column 4, lines 1-16).

As to claim 7, Loveland as modified discloses the computer system transmitting the first graphical element data to a second computer system via internet communication (See column 6, lines 60-67) the computer system transmitting the first non-graphical data unit to the second computer system via internet communication (See column 16, lines 41-67, wherein "second computer system" reads on project has been published and made available for access by variety of users across the network).

As to claim 8, Loveland as modified discloses:

the computer system receiving second graphical element data via internet communication from a second computer system, wherein the second graphical element data represents a second graphical element which is displayable on a monitor of the second computer system (See Loveland column 9, lines 43-53, also see Loveland column 10, lines 6-17, also see Loveland column 16, lines 41-67, wherein "second computer system" reads on project has been published and made available for access by variety of users across the network);

the computer system storing the second graphical element data into the database (See Loveland column 4, lines 61-67, also see Loveland column 15, lines 56-65); and

creating and storing an Intelligent CAD object within the database comprising the second graphical element data and the first non-graphical information data element (See Loveland column 8, lines 1-27, wherein "after.. is stored" reads on "completed projects").

As to claim 9, Loveland as modified discloses the computer system sending, via internet communication, list data to the first computer system (See column 6, lines 60-67, also see column 8, lines 41-62), wherein the list data represents a list of non-graphical data units in the database, wherein each non-graphical data elements stores non-graphical information data, wherein the list of non-graphical data units includes the first non-graphical data unit (See Loveland column 9, lines 54-65, wherein "list" reads on "file" that is of many stored in a database).

As to claim 10, Loveland discloses the computer system receiving an additional non-graphical data elements from a second computer system via Internet communication (See Loveland column 6, lines 60-67, also see Loveland column 8, lines 41-62); and

the computer system storing the additional non-graphical data element in the unit computer system (See Loveland column 9, lines 54-65).

As to claim 11, Loveland as modified discloses comprising the computer system storing the first graphical element, wherein the first graphical data unit stores additional graphical element data (See Loveland column 9, lines 54-65).

As to claim 12, Loveland as modified wherein graphical user interface includes:

receiving a selection from a collection of graphical elements (i.e. project);

a second portion in the first window for receiving a selection of intelligent CAD object associated with the collection;

receiving a selection of a component specifications;

viewing attributes for a selected component specifications; and

linking the selected component specifications to a selected intelligent CAD object.

The claim as whole is generally interpreted on GUI and its inherent features (See Loveland column 8, lines 1-14, and see Loveland column 9, lines 43-53, also see Loveland column 10, lines 6-17).

As to claim 13, Loveland as modified wherein the graphical user interface includes:

a viewing components specifications linked to the selected CAD object; and

creating a new component specification. Again generally interpreted on a conventional GUI with its inherent features (See Loveland column 8, lines 1-14, and see Loveland column 9, lines 25-32).

As to claim 14, Loveland discloses one or more memory mediums having processor readable code embodied on said memory mediums, said processor readable code for programming a processor to perform a method comprising:

receiving at least one first non-graphical data element representing a non-graphical data element representing physical or functional attribute and at least one first graphical element comprising a computer aided design (CAD) element, area or sub-area via a network interface from a first computer system (See column 9, lines 43-65), the computer system receiving the elements through a graphical user interface (See column 16, lines 14-25, column 16, lines 35-40, and see Figure 22, wherein "data unit" is deemed to "project file" for a created CAD project and stored a single file in the mast structure data), an Intelligent CAD object (wherein Loveland 's abstract describes how the structure holds both the CAD object, its description and relationship definitions), the graphical user interface configured to:

updating a database, wherein said data unit which includes at least one data element representing a physical or a functional attribute is stored in the database (See column 10, lines 22-50).

Loveland discloses the claimed invention except for receive non-graphical information associated with a selected graphical element including a component specification, and

link information for at least one component specification to a second component specification and the CAD element, area, or sub area;

generating link data associated with the CAD element and component specifications.

Loveland doesn't explicitly teach linking of components and specification. However, Loveland in Figure 2, column 8, line 1-14, shows how components are linked to attributes, specifications, and photos. Loveland also teaches storing items as files in a database (i.e. generating a link) in column 6, lines 44-67.

McClendon et al. teaches receiving non-graphical information associated with a selected graphical element including a component specification, and link information for at least one component specification to a second component specification and the CAD element, area, or sub area; generating link data associated with the CAD element and component specifications (See McClendon et al. Figure 2, also see McClendon et al. column 9, lines 8-32, and McClendon et al. column 14, lines 28-58).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Loveland by the teachings of McClendon et al. to include receiving non-graphical information associated with a selected graphical element including a component specification, and linking information for at least one component specification to a second component specification and the CAD element, area, or sub area generating link data associated with the CAD element and component specifications because it provides for ease of maintenance, and accuracy of records related to CAD project (See McClendon et al. column 4, lines 1-16).

As to claim 15, Loveland as modified discloses linking said at least one second non-graphical data element representing a physical or the functional within the attribute within the database to an object stored in the database, generating a subsequent second intelligent CAD object comprising the first graphical element and both first an second non-graphical elements (See Loveland column 9, lines 25-32, also see McClendon et al. Figure 2, also see McClendon et al. column 6, lines 1-15).

As to claim 16, Loveland as modified discloses comprising transmitting the intelligent CAD object to a second computer system via internet communication (See Loveland column 9, lines 1-30, also see Loveland column 16, lines 14-24, wherein all project files including linked components are made available on the Internet).

As to claim 17, Loveland as modified discloses comprising receiving and modifying the non-graphical data element information displayed in fields of an interface (See Loveland column 9, lines 43-53, also see Loveland column 10, lines 6-17).

As to claim 19, Loveland as modified discloses wherein the first computer system is coupled to the database via the Internet (See Loveland column 6, lines 60-67).

It is believed that the combination of Loveland and McClendon et al. alone still teach the Applicant's claims, however, in the interest of compact prosecution, an alternative rejeciton is hereby introduced:

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 1-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Loveland (U.S. Patent No. 6,826,539 B2) in view of McClendon et al. (U.S. Patent No. 6,625,619 B1), and further in view of Mike Rosenman & Fujun Wang. CADOM: A Component Agent-based Design-Oriented Model for Collaborative Design. Volume 11, Number 4 / December, 1999. Springer London.(From hereon in Rosenman).

As to claim 1, Loveland discloses a method of managing facilities data, the method being executable by a host computer system comprising:

receiving a first graphical element comprising a computer aided design (CAD) element, area or sub area entered by a user as an image displayed on a monitor of a first computer system and receiving non-graphical information associated with the first graphical element through a graphical user interface,

the non-graphical information including a first component specification from a database comprising a plurality of component specifications, the first component specification comprising

at least one non-graphical data element representing a physical or functional attribute and at least one data element representing a non-physical and non-functional attribute,

linking information for at least one component specification and the graphical element by generating data an intelligent CAD object comprising the graphical element and component specifications, at least one component specification including the first component specification;

and first computer system transmitting said the intelligent CAD object to a database for storage via internet communication by the first computer system.

The combination of Loveland and McClendon et al. although teaches combining graphical and non-graphical elements in object oriented programming, however, the explicit terminology of "Intelligent CAD object".

Rosenman explicitly uses the term "Intelligent CAD object" on page 195, left column.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Loveland by the teachings of McClendon et al. to include combining elements together (associating graphic with its descriptor) for easier transport and storage and subsequent reference and use by other entities.

As to claim 2, Loveland as modified discloses wherein the first computer system comprises a CAD computer system and wherein the CAD element is a first CAD graphical element, the first graphical element comprising the first CAD graphical element (See Loveland column 15, lines 35-55).

As to claim 3, Loveland as modified discloses wherein the graphical user interface comprises a plurality of fields, wherein the first component specification comprises a plurality of non-graphical information, and wherein entering the first component specification into the graphical user interface comprises entering the plurality of non-graphical information components into the plurality of fields of the graphical user interface (See Loveland column 9, lines 43-53, also see Loveland column 10, lines 6-17).

As to claim 4, Loveland as modified discloses the first computer system receiving, via internet communication, component specification data, wherein specification data represents a plurality of component specifications displayed on the monitor of the first computer system, wherein each component specification of the list represents non-graphical information comprising a physical or functional attribute stored in a database in data communication with the first computer system, the first computer system displaying the list of specifications (See Loveland column 13, lines 53-67);

adding a second graphical element to the image displayed on the monitor of the first computer system (See Loveland column 13, lines 53-67, also see Loveland column 15, lines 35-67, more than one graphical element can be stored and viewed by the user);

the first computer system transmitting second graphical element data to the database via internet communication, wherein the second graphical element data represents the second graphical element (See Loveland column 18, lines 45-65, also see Loveland column 17, lines 30-62, teaches listing of more then one graphical element, and also teaches the database to be central or master wherein numerous users have access to it);

the first computer system transmitting link data to the database via internet communication, wherein the link data indicates that one of the data units associated with the specifications in the specification list stored in the database is to be linked within the database to the second graphical element data after the second graphical element data is stored in the database (See Loveland column 18, lines 45-65, also see Loveland column 17, lines 30-62, teaches listing of more then one graphical element).

As to claim 5, Loveland discloses a method of managing facilities data, the method being executable by a host computer system comprising:

receiving a first graphical element comprising a computer aided design CAD element, area, or sub area entered by a user as an image displayed on a monitor of a first computer system (See column 6, lines 21-32, also see Figure 19, 222, Upload Image); and

displaying a graphical user interface on the monitor of the first computer system, wherein the graphical user interface is configured to:

receiving the first component specification into the graphical user interface, the first component specification comprising at least one non-graphical data element representing a physical or functional attribute and at least one data element representing a non-physical and non-functional attribute into the graphical user interface (See column 4, lines 61-67, also see column 15, lines 56-65);

transmitting said link data and said first component specification including the non-graphical data element and said data element representing the non-physical and non-functional

attribute as a data unit to a database via internet communication by the first computer system (See column 2, lines 23-40).

Loveland discloses the claimed invention except for receive non-graphical information associated with the first graphical element including a first component specification; and

link information for at least one component specification to a computer aided design(CAD) clement, area or sub-area; and link information for at least one component specification to a second component specification and the CAD element, area or sub-area.

Loveland doesn't explicitly teach linking of components and specification. However, Loveland in Figure 2, column 8, line 1-14, shows how components are linked to attributes, specifications, and photos. Loveland teaches storing specification in a database in column 2, lines 24-36, and column 17, lines 13-35.

McClendon et al. teaches receive non-graphical information associated with the first graphical element including a first component specification; and

link information for at least one component specification to a computer aided design(CAD) clement, area or sub-area; and link information for at least one component specification to a second component specification and the CAD element, area or sub-area (See McClendon et al. Figure 2, also see McClendon et al. column 9, lines 8-32, and McClendon et al. column 14, lines 28-58).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Loveland by the teachings of McClendon et al. to include receive non-graphical information associated with the first graphical element including a first component specification; link information for at least one component specification to a computer aided

design(CAD) clement, area or sub-area; and link information for at least one component specification to a second component specification and the CAD element, area or sub-area because it provides for ease of maintenance, and accuracy of records related to CAD project (See McClendon et al. column 4, lines 1-16).

The combination of Loveland and McClendon et al. although teaches combining graphical and non-graphical elements in object oriented programming, however, the explicit terminology of "Intelligent CAD object".

Rosenman explicitly uses the term "Intelligent CAD object" on page 195, left column.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Loveland by the teachings of McClendon et al. to include combining elements together (associating graphic with its descriptor) for easier transport and storage and subsequent reference and use by other entities.

As to claim 6, and 18, Loveland discloses a method operating on a processor comprising:

a database receiving and storing first computer aided design CAD element data generated by a first computer system in data communication with the database, wherein the first CAD element data represents a first CAD element, area, or sub area displayable on a monitor (See column 16, lines 30-55, teaches accessing the web interface via a communication network);

a database receiving and storing, as a component specification comprising at least one non-graphical data element representing a physical or functional attribute, and at least one data element representing a non-physical and non-functional attribute (See column 4, lines 61-67, also see column 15, lines 56-65).

Loveland discloses the claimed invention except for creating and storing a link in the database between data unit and the first graphical element, wherein the data unit stores first non-graphical information data, and wherein the database is configured to link one of the plurality of component specifications to a second of the plurality of component specifications.

Loveland doesn't explicitly teach wherein the database is configured to link one of the plurality of component specifications to a second of the plurality of component specifications. However, Loveland in Figure 2, column 8, line 1-14, shows how components are linked to attributes, specifications, and photos stored in repository.

McClendon et al. teaches creating a link in the database between data unit and a first graphical element, wherein the link can be created between either the first graphical element, in the database wherein the data unit stores first non-graphical information data, and wherein the database is configured to link one of the plurality of component specifications to a second of the plurality of component specifications (See McClendon et al. Figure 2, also see McClendon et al. column 9, lines 8-32, and McClendon et al. column 14, lines 28-58).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Loveland by the teachings of McClendon et al. to include creating a link in the database between data unit and a first graphical element or a second data unit, wherein the link can be created between either the first graphical element or the second data unit, in the database wherein the data unit stores first non-graphical information data, and wherein the database is configured to link one of the plurality of component specifications to a second of the plurality of component specifications because it provides for ease of maintenance, and accuracy of records related to CAD project (See McClendon et al. column 4, lines 1-16).

The combination of Loveland and McClendon et al. although teaches combining graphical and non-graphical elements in object oriented programming, however, the explicit terminology of "Intelligent CAD object".

Rosenman explicitly uses the term "Intelligent CAD object" on page 195, left column.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Loveland by the teachings of McClendon et al. to include combining elements together (associating graphic with its descriptor) for easier transport and storage and subsequent reference and use by other entities.

As to claim 7, Loveland as modified discloses the computer system transmitting the first graphical element data to a second computer system via internet communication (See Loveland column 6, lines 60-67) the computer system transmitting the first non-graphical data unit to the second computer system via internet communication (See Loveland column 16, lines 41-67, wherein "second computer system" reads on project has been published and made available for access by variety of users across the network).

As to claim 8, Loveland as modified discloses:

the computer system receiving second graphical element data via internet communication from a second computer system, wherein the second graphical element data represents a second graphical element which is displayable on a monitor of the second computer system (See Loveland column 9, lines 43-53, also see Loveland column 10, lines 6-17, also see Loveland

column 16, lines 41-67, wherein "second computer system" reads on project has been published and made available for access by variety of users across the network);

the computer system storing the second graphical element data into the database (See Loveland column 4, lines 61-67, also see Loveland column 15, lines 56-65); and

creating and storing an Intelligent CAD object within the database comprising the second graphical element data and the first non-graphical information data element (See Loveland column 8, lines 1-27, wherein "after.. is stored" reads on "completed projects").

As to claim 9, Loveland as modified discloses the computer system sending, via internet communication, list data to the first computer system (See Loveland column 6, lines 60-67, also see Loveland column 8, lines 41-62), wherein the list data represents a list of non-graphical data units in the database, wherein each non-graphical data elements stores non-graphical information data, wherein the list of non-graphical data units includes the first non-graphical data unit (See Loveland column 9, lines 54-65, wherein "list" reads on "file" that is of many stored in a database).

As to claim 10, Loveland discloses the computer system receiving an additional non-graphical data elements from a second computer system via Internet communication (See Loveland column 6, lines 60-67, also see Loveland column 8, lines 41-62); and

the computer system storing the additional non-graphical data element in the unit computer system (See Loveland column 9, lines 54-65).

As to claim 11, Loveland as modified discloses comprising the computer system storing the first graphical element, wherein the first graphical data unit stores additional graphical element data (See Loveland column 9, lines 54-65).

As to claim 12, Loveland as modified wherein graphical user interface includes:

receiving a selection from a collection of graphical elements (i.e. project);

a second portion in the first window for receiving a selection of intelligent CAD object associated with the collection;

receiving a selection of a component specifications;

viewing attributes for a selected component specifications; and

linking the selected component specifications to a selected intelligent CAD object.

The claim as whole is generally interpreted on GUI and its inherent features (See Loveland column 8, lines 1-14, and see Loveland column 9, lines 43-53, also see Loveland column 10, lines 6-17).

As to claim 13, Loveland as modified wherein the graphical user interface includes:

a viewing components specifications linked to the selected CAD object; and

creating a new component specification. Again generally interpreted on a conventional GUI with its inherent features (See Loveland column 8, lines 1-14, and see Loveland column 9, lines 25-32).

As to claim 14, Loveland discloses one or more memory mediums having processor readable code embodied on said memory mediums, said processor readable code for programming a processor to perform a method comprising:

receiving at least one first non-graphical data element representing a non-graphical data element representing physical or functional attribute and at least one first graphical element comprising a computer aided design (CAD) element, area or sub-area via a network interface from a first computer system (See column 9, lines 43-65), the computer system receiving the elements through a graphical user interface (See column 16, lines 14-25, column 16, lines 35-40, and see Figure 22, wherein "data unit" is deemed to "project file" for a created CAD project and stored a single file in the mast structure data), the graphical user interface configured to:

updating a database, wherein said data unit which includes at least one data element representing a physical or a functional attribute is stored in the database (See column 10, lines 22-50).

Loveland discloses the claimed invention except for receive non-graphical information associated with a selected graphical element including a component specification, and

link information for at least one component specification to a second component specification and the CAD element, area, or sub area;

generating link data associated with the CAD element and component specifications.

Loveland doesn't explicitly teach linking of components and specification. However, Loveland in Figure 2, column 8, line 1-14, shows how components are linked to attributes, specifications, and photos. Loveland also teaches storing items as files in a database (i.e. generating a link) in column 6, lines 44-67.

McClendon et al. teaches receiving non-graphical information associated with a selected graphical element including a component specification, and link information for at least one component specification to a second component specification and the CAD element, area, or sub area; generating link data associated with the CAD element and component specifications (See McClendon et al. Figure 2, also see McClendon et al. column 9, lines 8-32, and McClendon et al. column 14, lines 28-58).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Loveland by the teachings of McClendon et al. to include receiving non-graphical information associated with a selected graphical element including a component specification, and linking information for at least one component specification to a second component specification and the CAD element, area, or sub area generating link data associated with the CAD element and component specifications because it provides for ease of maintenance, and accuracy of records related to CAD project (See McClendon et al. column 4, lines 1-16).

The combination of Loveland and McClendon et al. although teaches combining graphical and non-graphical elements in object oriented programming, however, the explicit terminology of "Intelligent CAD object".

Rosenman explicitly uses the term "Intelligent CAD object" on page 195, left column.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Loveland by the teachings of McClendon et al. to include combining elements together (associating graphic with its descriptor) for easier transport and storage and subsequent reference and use by other entities.

As to claim 15, Loveland as modified discloses linking said at least one second non-graphical data element representing a physical or the functional within the attribute within the database to an object stored in the database, generating a subsequent second intelligent CAD object comprising the first graphical element and both first an second non-graphical elements (See Loveland column 9, lines 25-32, also see McClendon et al. Figure 2, also see McClendon et al. column 6, lines 1-15).

As to claim 16, Loveland as modified discloses comprising transmitting the intelligent CAD object to a second computer system via internet communication (See Loveland column 9, lines 1-30, also see Loveland column 16, lines 14-24, wherein all project files including linked components are made available on the Internet).

As to claim 17, Loveland as modified discloses comprising receiving and modifying the non-graphical data element information displayed in fields of an interface (See Loveland column 9, lines 43-53, also see Loveland column 10, lines 6-17).

As to claim 19, Loveland as modified discloses wherein the first computer system is coupled to the database via the Internet (See Loveland column 6, lines 60-67).

Response to Arguments

8. Applicant's arguments filed on 2/4/09 have been fully considered but they are not persuasive.

Applicant's argument that "Loveland does not teach or suggest "Intelligent CAD object"" is noted but not found to be persuasive.

Applicant's specification paragraphs 0067 and 0075 both describe the intelligent CAD object as nothing more than ability to define and associate elements from a database related to be graphic and non-graphic feature. Loveland 's abstract describes how the structure holds both the CAD object, its description and relationship definitions and as such is interpreted to read on the argued limitation.

Applicant's argument on page 11 of the remarks that "Applicant's invention as claimed does not require any sort of taxonomy in order to generate an intelligent object for storage within its database. Additionally, Applicant's specification at no point teaches that the database contains any sort of taxonomy in order to store said objects" is noted but not deemed to be persuasive since it appears to be irrelevant and unclear, though is noted that "taxonomy" is well known term to specify the organization of a database and is defined as "A taxonomy is a collection of Controlled Vocabulary terms organized into a hierarchical structure. Each term in a taxonomy is in one or more parent/child (broader/narrower) relationships to other terms in the taxonomy….a library".

It is noted that relationships and links are defined within a taxonomy along with the organization of data.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Roller (U.S. Patent No. 5,838,328) teaches Intelligent CAD design.

Felser et al. (U.S. Patent No. 6,064,386) teaches intelligent shape objects.

Dhimitri et al. (U.S. Patent No. 6,992,680 B1) teaches alight on screen for shape objects.

Lane et al. (U.S. Pub. No. 2002/0067364 A1) teaches intelligent design data abstractions.

For list of cited references, see PTO-Form 892.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Neveen Abel-Jalil whose telephone number is 571-272-4074. The examiner can normally be reached on 8:30AM-5:30PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christian P. Chace can be reached on 571-272-4190. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Neveen Abel-Jalil
Primary Examiner
March 30, 2009

/Neveen Abel-Jalil/

Primary Examiner, Art Unit 2165